

FORM FRA F 6180.105
Rail-Equipment Accident/Incident Cost Analysis Study

A. PURPOSE OF THIS FORM

In cooperation with railroad management and railroad labor, the Federal Railroad Administration has created a working group to look for a simpler and more accurate method of determining damages at a railroad accident that better reflects risk. This working group has proposed a pilot project to test an alternative reporting approach and to gather damage cost data.

Current reporting requirements specify that collisions, derailments, fires, explosions, acts of God, or other events involving the operation of railroad on-track equipment (standing or moving) and causing reportable damages greater than the current reporting threshold must be reported using Form FRA F 6180.54. Parallel to the current reporting requirements, the pilot would involve an additional worksheet (i.e., Form F 6180.105) for each reportable accident and monthly aggregate data for minor accidents.

A goal of this effort is to test the feasibility of developing a cost schedule worksheet that railroads would use to determine reportable damages in place of the current system of capturing actual damages. This would not only provide uniform reporting but would result in more consistent handling of other rules that use the accident data, such as post-accident alcohol/drug testing and possible engineer decertification. A second goal is to gather data in order to determine representative costs for the various categories.

The pilot is expected to run from August 1, 2000 to January 31, 2001 at various locations throughout the United States. If successful, this method would replace the current system of tracking and updating "actual" reportable costs. The results will be statistically analyzed to determine if this approach will work.

B. GENERAL INSTRUCTIONS AND INTERPRETATIONS

Accuracy and consistency in reporting will contribute to the success of this study. In keeping with this, please read the instructions and definitions carefully before completing this form.

Form FRA F6180.105 is broken down into two main sections, "**Equipment**" and "**Railroad Fixed Facilities**". Fill out all items in these two sections that apply. A "Comments" block (Item 61) is provided at the end of the form for any narrative you wish to provide.

Throughout the form, where the equipment or facilities are damaged or destroyed, the following definitions apply:

Damaged: Requiring repair to keep in similar service.

Destroyed: Damaged beyond repair.

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The **Equipment** section (Items 5 through 27) apply to equipment damage to the consist reported in *Form F6180.54, "Rail Equipment Accident/Incident Report"*. In this section, the following definitions apply:

"Derailed" means one or more wheels off track or having been off track. Specifically:

Derailed Upright: Standing or leaning (upright-remaining on wheels, even if completely off the track).

Derailed Not Upright: On side, roof, or end.

"Upright" means remaining on wheels, even if completely off the track.

A **"car"** is any unit of on-track equipment including cabooses designed to be hauled by locomotives. Multi-platform cars are considered a car.

Estimates to dollar damages should be approximated as best a guess as is possible and should total to the dollar amounts specified on Form F 6180.54 as noted below.

NOTE ON TOTAL ESTIMATED DOLLAR (\$) DAMAGES

The total estimated dollar damages for Equipment (Items 5 through 26) should be the same amount as in Item 36 (Equipment Damage This Consist) in Form F 6180.54, which is the amount of reportable damage sustained by the equipment consist for which the Form F 6180.54 was prepared. **THE VALUE ENTERED IN FORM F 6180.105, ITEM 27, SHOULD BE THE SAME AS THE VALUE IN FORM F 6180.54, ITEM 36.**

The total estimated dollar damages for Railroad Fixed Facilities (Items 28 through 59) should be the same amount as in Item 37 (Track, Signal, Way & Structure Damage) in Form F 6180.54. In Item 37 of Form F6180.54, the railroad responsible for maintaining the track on which the accident/incident occurred enters the cost of damages to track, signals, roadbed, track structures, etc. **THE VALUE ENTERED IN FORM F 6180.105, ITEM 60, SHOULD BE THE SAME AS THE VALUE IN FORM F 6180.54, ITEM 37.**

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C. INSTRUCTIONS FOR COMPLETING FORM FRA F 6180.105

<u>Item</u>	<u>Instruction</u>
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|----|---|
| 1. | <u>Railroad Code</u>
Enter the Railroad Code of the reporting railroad. Use the standard alphabetic code for the railroad (codes can be found in Appendix A, FRA Guide for Preparing Accident/Incident Reports). This item must always be completed. |
| 2. | <u>Year</u>
Enter the year of the accident/incident. Enter the year as four digits (e.g., 2000). This item must always be completed |
| 3. | <u>Month</u>
Enter the numeric month of the accident (e.g., enter 05 for May). This item must always be completed. |
| 4. | <u>Incident Number</u>
Enter the same incident number that appears in FRA Form F 6180.54 (in Item 1b., Railroad Accident/Incident No.). This item must always be completed. |

EQUIPMENT SECTION (Items 5 through 27)

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| 5-8. | <u>Freight Cars</u>
For each freight car damaged in an accident, determine first if the car is damaged beyond repair, and if yes, record the quantity (number of cars damaged beyond repair) and estimated dollar damage in Item 8. Otherwise record the damaged car information (quantity and estimated dollar damage) in the item that describes the condition after the accident (Item 5, 6, or 7). No car should be counted more than once. |
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Example

SAMPLE SCENARIO: TEN FREIGHT CARS ARE DAMAGED IN AN ACCIDENT.

- # **One car** was damaged beyond repair, but was not derailed, and **another car** was damaged beyond repair, was derailed not upright. Since **both cars** were destroyed, record **2** in Block 8, under Quantity, then enter the estimated dollar damage amount (e.g., \$40,000).
- # **Three cars** were damaged but were not derailed, that were repairable. Record **3** in Block 5, under Quantity, then enter the estimated dollar damage amount (e.g., \$8,000).
- # **Four cars** were damaged that derailed, and all of them remained upright. Record **4** in Block 6, under Quantity, then enter the estimated dollar damage amount (e.g., \$4,000).
- # **One car** was damaged and derailed not upright. Record **1** in Block 7, under Quantity, then enter the estimated dollar damage amount (e.g., \$2,000).

The total of the cars in Blocks 5, 6, 7, and 8 should equal **10**. No car should be counted twice. If only these 10 cars were damaged in the accident then the sum of the estimated dollar damages in blocks 5, 6, 7, and 8 should be the same as in Item 36 in the Rail-Equipment Accident/Incident Report, Form F6180.54.

<u>EXAMPLE</u>			
DEPARTMENT OF TRANSPORTATION FEDERAL RAILROAD ADMINISTRATION (FRA)		RAIL-EQUIPMENT ACCIDENT COST ANALYSIS STUDY	
1. Railroad Code XYZ	2. Year 2000	3. Month 11	
EQUIPMENT *			
Freight Cars *			
5. Cars Damaged Not Derailed	Quantity 3	Est. \$ Damage 8,000	17. Cars D
6. Cars Derailed Upright	4	4,000	18. Cars D
7. Cars Derailed Not Upright	1	2,000	19. Cars D
8. Cars Destroyed Upright or Not Upright	2	40,000	20. Cars W Shell P
Passenger Cars/MU *			
9. Cars Damaged Not Derailed	Quantity	Est. \$ Damage	21. Cars W
			22. Cars D

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9-12. Passenger Cars/MU

For each passenger car damaged in an accident, determine first if the car is damaged beyond repair, and if yes, record the quantity (number of cars damaged beyond repair) and estimated dollar damage in Item 12; otherwise record the count in the appropriate items (Items 9-11) which describe condition after the accident. A passenger car is rolling equipment intended to provide transportation for members of the general public, baggage, mail or express and business, including MU locomotives and self propelled passenger cars.

See the Example for Items 5 through 8 and apply the same principle to this section. **No car should be counted more than once.**

13-16. Other On-Track Equipment

Equipment refers to any unit of on-track equipment except locomotives, cars or passenger cars. For each piece of "Other On-Track Equipment" (such as an MOW car or other equipment not defined in Items 5-12 and Items 17-26) damaged in an accident, determine first if the car is damaged beyond repair, and if it is, then record the information in Item 16. Otherwise record the damaged car in the item that describes the condition after the accident.

See the Example for Items 5 through 8 and apply the same principle to this section. **No unit should be counted more than once.**

17-22. Tank Cars

For each tank car (regardless of if it contains hazardous materials) damaged in an accident, determine first if the car is damaged beyond repair, if it is, record the information in Item 22; if it is not, but has a puncture allowing the product to release, then record it in Item 21. If the car derailed not upright, then record it in Item 19. If the car derailed upright, but there was an outer shell crease (and no inner shell puncture), then record it in Item 20. Otherwise record it in either Item 17 or 18, whichever case applies.

See the Example for Items 5 through 8 and apply the same principle to this section. **No car should be counted more than once.**

23-26. Locomotives

For each locomotive damaged in an accident, determine first if the locomotive is damaged beyond repair, if it is, record the information in Item 26; otherwise record the damaged locomotive in the item that describes the condition after the accident. A locomotive is a piece of on-track equipment with one or more propelling motors (except MU or self propelled passenger cars) designed to carry freight or passenger traffic or both.

See the Example for Items 5 through 8 and apply the same principle to this section.

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RAILROAD FIXED FACILITIES SECTION (Items 28 through 59)

27. Total of Equipment Est. \$ Damage

Add the estimated dollar amounts entered in Items 5 through 26 and enter the total in the Est. \$ Damage block for this item. This total should equal the value entered in Item 36 of Form F 6180.54 (Equipment Damage This Consist).

28-30. Track

Record the number of feet in the appropriate block and the estimated dollar damages. Include linear footage of all involved track, excluding the length of "turnouts" from points to frog.

Track is main track or other than main track (including track on bridges/culverts) excluding switches/turnouts (the length of "turnouts" from points to frog should be deducted from track footage) in the following categories:

Class 1, or Excepted (affected feet damaged)
Class 2-9 Wood Ties
Class 2-9 Other Ties

31-34. Switches/Turnouts

Record count of switches/turnouts in each appropriate Quantity block, then enter the estimated dollar damage. Each switch/turnout should be counted only once. Non-railroad structures should not be counted. A switch/turnout is a segment of track defined as the frog, switch points, stock rails, fastenings and all related hardware. Rods, switch ties, switch stand or switch machine and closure rails for diverting movement from one track to another.

35-42. Facilities

Record count of facilities in each appropriate Quantity block, then enter the estimated dollar damage. Each facility should be counted only once. Non-railroad structures should not be counted. Buildings are permanent railroad structures.

43. Bridge Structures

Record the count of bridge structures damaged or destroyed in the Quantity block, then enter the estimated dollar damage. Count each bridge structure only once. Non-railroad structures should not be counted. Bridges are structures suspended over water or land including those with fixed or moveable spans. Track components on bridges and culverts are included only in track damage.

44-49. Signals

Record count of signals in each appropriate Quantity block. Count each signal only once. Non-railroad structures should not be counted. Wayside signals are electronic or mechanical devices along the railroad right of way whose indications control train

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movements including devices designed to detect equipment flaws. A Grade Crossing Signal is an active warning device located at a grade crossing.

50-55. Electric Traction Systems

Record, in feet, catenary damaged/destroyed (in Items 50-51) and Electric Third Rail damaged/destroyed (in Items 52-53). Record the number of structures (damaged/destroyed) used to support the catenary system (Items 54-55). Record in the appropriate blocks, then enter the estimated dollar damage. Do not count an element more than once. Non-railroad structures should not be counted. An Electric Traction System is a system of wires suspended between poles, structures, or bridges that support the main, auxiliary, messenger, contact and feeder wires or third rail including clips and hangers.

56-59. Other (specify)

If some other railroad property damage, not lading was damaged or destroyed that was not listed above, specify what was damaged or destroyed, then enter the quantity and estimated dollar damage. Other structures are permanent railroad structures other than buildings or bridges, including but not limited to ramps, docks, station platforms, servicing facilities, and culverts.

60. Total of Railroad Fixed Facilities Est. \$ Damage

Add the estimated dollar amounts entered in Items 28 through 59 and enter the total in the Est. \$ Damage block for this item. This total should equal the value entered in Item 37 of Form F 6180.54 (Track, Signal, Way & Structure Damage).

61. Comments

Enter narrative and comments here.